

REMARKS

After the foregoing Amendment, claims 1, 3-6, 15 and 17-20 are currently pending in the application. Claims 2, 7-14 and 16 have been canceled without prejudice. Claims 8-14 have been cancelled for being directed to a non-elected invention. Claim 1 has been amended to incorporate the language of claims 2 and 7 and to clarify the orientation of the at least one collection chamber and channels. Support for this amendment can be found in Figs. 1-6, paragraphs [0020]-[0038] and original claims 1-7 and 15-20. Claims 15 and 17-20 have been amended to clarify the disclosed claimed material making the language of claims 15 and 17-20 consistent with claims 1 and 3-6 respectively. Accordingly, no new matter has been added.

Election/Restrictions

The Examiner has issued a restriction requirement between Invention I, claims 1-7 and 15-20 and Invention II, claims 8-14.

Pursuant to 37 C.F.R. § 1.143, Applicants hereby affirm to the provisional election by William Schwarze on December 22, 2006 to elect Invention I, claims 1-7 and 15-20. The foregoing election is made without traverse.

Claim Rejection 35 U.S.C. § 112

The Examiner has rejected claims 3 and 17 under 35 U.S.C. § 112, second paragraph, as being indefinite. Applicants respectfully traverse this rejection in view of the foregoing amendment.

Claims 3 and 17 have been amended to clarify that “each of the additional collection chambers being connected to one of the connection channels at an end opposite the first collection chamber.” In view of the foregoing amendment to claims 3 and 17, Applicants submit that the claims 3 and 17 are in full compliance with 35 U.S.C. § 112. Accordingly, it is respectfully requested that the §112 rejections of claims 3 and 17 be withdrawn.

Claim Rejections – 35 U.S.C. § 102

The Examiner has rejected claims 1-7 and 15-20 under 35 U.S.C. § 102(e) as being anticipated by U.S. Patent Application Publication No. 2003/0175990 (Hayenga). Applicants respectfully traverse this rejection.

Referring to Fig. 4, Hayenga discloses a microfluidic device 300 comprised of a multi-layer laminated structure where each layer has channels 310, 312, 314 that form a microfluidic channel network. The channels 310, 312, 314 extend from a microfluidic junction 302 to a plurality of fluid ports 304, 306, 308. The ports 304, 306, 308 are designed for filling by pipette injection. The liquid is then pumped with a syringe pipette, an external pumping force (not shown) and then may flow into the junction 302, storage loop 324, analysis region 332 or waste reservoir 338.

Claim 1, as amended, of the present application is directed to a microfluidic component and recites, *inter alia*:

a laminated assembly comprising a substrate and a top plate, where the substrate and the top plate define therebetween a first collection chamber having a pump disposed therein, at least two connection channels connected to the first collection chamber, and at least two valves, each valve located within one of the at least two connection channels.

[underline emphasis added]

Referring to Figs. 1-6 in the present application, the microfluidic component includes a first collection chamber 14a with at least two connection channels 16 extending therefrom. Each connection channel 16 includes a valve 18 and may be connected to an additional collection chamber 14c. The first collection chamber 14a, and preferably all of the additional collection chambers 14 include a pump 19. The pumps 19 are actuated to drive the fluid through the connection channels 16 which is randomly collected in the collection chambers 14 through the inlet/outlet ports 12.

Hayenga does not disclose each and every element of currently pending claim 1, as amended. Specifically, Hayenga does not disclose a collection chamber having a pump disposed

therein. The microfluidic junction 302, referred to as the collection chamber by the Examiner, does not contain a pump. The pumping in Hayenga is provided by a syringe pipette through the ports 304, 306, 308. A syringe pipette is an external apparatus which consists of a narrow tube into which fluid is drawn by suction created by the syringe. The syringe is typically manually operated. A syringe pipette is not capable of being disposed within the collection chamber. Further, the syringe pipette is inserted into the ports 304, 306, 308 and does not directly interact with a collection chamber. Accordingly, Hayenga fails to disclose each and every element of claim 1 of the present application.

Claims 3-6, dependent on claim 1, are patentable over Hayenga for at least the same reason discussed above. Claims 15 and 17-20 have been similarly amended and are patentable over Hayenga for at least the same reason discussed above. Claims 2, 7 and 16 have been cancelled, rendering their rejections moot. Accordingly, Applicant respectfully requests that the Examiner reconsider and withdraw any rejection of claims 1, 3-6, 15 and 17-20 based upon anticipation by Hayenga.

CONCLUSION

In view of the foregoing Amendment and remarks, Applicants respectfully submit that the present application, including claims 1, 3-6, 15 and 17-20, is in condition for allowance and such action is respectfully requested.

Respectfully submitted,

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July 12, 2007
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